

FURTHER ADDITIONS TO THE MARINE FISH FAUNA OF SOUTH AUSTRALIA

Six species of fish are newly recorded for South Australia, most on the basis of single specimens. One species, *Idiacanthus niger*, represents the first record of the family Idiacanthidae in the region. A seventh species (*Metavelifer multiradiatus*) and family (Veliferidae), are reported from South Australian waters for the first time. Four of the species were included in a checklist for the south east of the State¹ but without further details. All species reported here have been recorded elsewhere in temperate waters around Australia; some also in tropical waters. All occur beyond Australia.

Some of the species are acknowledged wide-ranging oceanic forms (*Hexanchus griseus*, *Gasterochisma melampus*, *Makaira indica* and *Lagocephalus lagocephalus*, but lack of supplementary records does not indicate permanent extensions of distribution into the South Australian region. As with some earlier records²⁻⁷ these latter records probably represent vagrants.

The discovery of *H. griseus*, *I. niger* and *Cyttus novaezelandiae* reflect recent increased deepwater commercial fishing off South East South Australia.

Family Hexanchidae. *Hexanchus griseus* (Bonaterre, 1788).

A specimen (Fig. 1) was captured on a long-line, set at 329 m depth, on a flat "muddy" sea bed, about 46 km southwest of Beachport, S. Aust. (approx. 37°43'S, 139°35'E), on 17.vii.1982, by R. Morgan.

H. griseus has been recorded in Australia off Tasmania, Victoria and New South Wales, between Port Fairy (Vic.) and Norah Head



Fig. 1, *Hexanchus griseus*. SAM F4740. TL 1450 mm.

(N.S.W.)⁸, unpubl. recs. It is found in tropical and temperate waters worldwide.⁹

Family Idiacanthidae. *Idiacanthus niger* Regan, 1914.

One specimen (Fig. 2) was trawled, at 549 m depth, about 47 km southwest of Cape Buffon, S. Aust. (approx. 37°52'S, 139°43'E), in iv.1981, by J. Sealey.

I. niger has been recorded in Australia in deep water off western Vic. and N.S.W. (unpubl. recs.), and is also known off New Zealand, Chile and South Africa^{10,11}.

Family Veliferidae. *Metavelifer multiradiatus* (Regan, 1907).

A specimen (Fig. 3) was trawled, at 40 m depth, 4 km southeast of Evans Island, near Ceduna, S. Aust. (approx. 32°24'S, 133°31'E), on 3.xi.1983, by A. Olsen.

M. multiradiatus has been reported previously from W.A., N.S.W.¹², and "the Great Australian Bight"¹³. It has been recorded also (but not reported) in the Great Australian Bight specifically off the S. Aust. coast (unpubl. recs.). Beyond Australia, the nominal *Velifer multispinosus* Smith, 1951, from southeast Africa, is a synonym of *M. multiradiatus*¹⁴.



Fig. 2, *Idiacanthus niger*, SAM F4757, TL 400 mm.

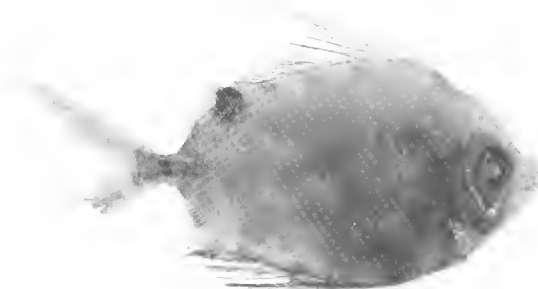


Fig. 3. *Metavelifer multiradiatus*. SAM F4746. TL 109 mm.

Family Zeidae. *Cyttus novaezelandiae* (Arthur, 1885).

Five specimens (Fig. 4) were trawled, at 549 m depth, about 47 km southwest of Cape Buffon, S. Aust. (approx. 37°52'S, 139°43'E), in iv.1981, by J. Sealey.

C. novaezelandiae has been recorded in Australia from Tasmania, Vic. and N.S.W.⁸ It is also known from New Zealand¹⁰.

Family Scombridae. *Gasterochisma melampus* Richardson, 1845.

A specimen (Fig. 5) was trolled, about 23 km west-northwest of Port MacDonnell, S. Aust. (approx. 38°03'S, 140°26'E), on 7.vi.1982, by I. J. Carrison.

G. melampus has been recorded in Australia from off Tas., Vic., N.S.W. and Qld.⁸ It is also known from other temperate waters of the southern hemisphere, e.g. New Zealand, Argentina and South Africa^{10,11}.

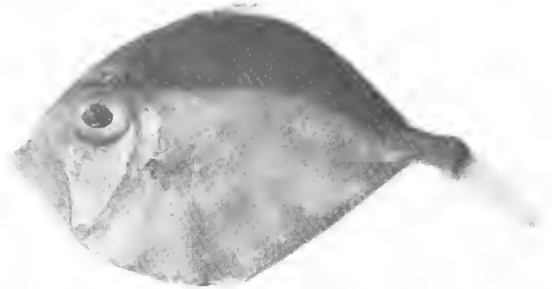


Fig. 4. *Cyttus novaezelandiae*. SAM F4745. TL (largest specimen) 195 mm.

Family Istiophoridae. *Makaira indica* (Cuvier, 1831).

A dead specimen (Fig. 6) was found floating at the surface near the grain wharf at Thevenard, S. Aust. (pprox. 32°09'S, 133°39'E), on 15.iv.1983, by A. E. & D. J. Holder. Fisheries officer J. N. R. Smith took the photograph (Fig. 6) and measurements. A. E. Holder of Thevenard kept only the head.

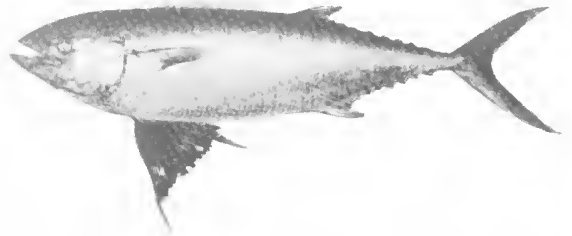


Fig. 5. *Gasterochisma melampus*. SAM F4759. TL 970 mm.



Fig. 6. *Makaira indica*. TL 3820 mm.

M. indica has been recorded in Australia from W.A. (Shark Bay and off Albany) and N.S.W. (Port Stephens) (unpubl. recs.). It ranges widely in circumglobal temperate and tropical waters¹⁵.

Family Tetraodontidae. *Lagocephalus lagocephalus* (Linnaeus, 1758).

A dead specimen (Fig. 7) was found on the beach near the jetty at Port MacDonnell, S. Aust. (approx. 38°03'S, 140°42'E), on 9.v.1983, by P. Cawthorne.

L. lagocephalus has been recorded in Australia from Tasmania⁸. This species is well known in the Atlantic, Indian and Pacific Oceans¹⁶.

Those persons mentioned (all professional fishermen) are thanked for collecting and donating the specimens to the South Australian Museum. G. Bond (Arena Sports Store, Mt Gambier) and J. N. R. Smith (S.A. Dept. of Fisheries) are thanked for assistance with the *L. lagocephalus* and *M. indica* specimens respectively.

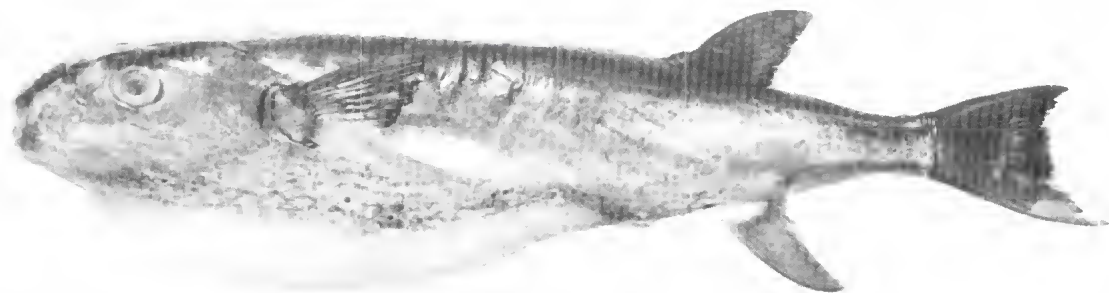


Fig. 7. *Lagocephalus lagocephalus*. SAM F4733. TL 520 mm.

¹Glover, C. J. M. (1983) Freshwater and marine fishes. In Tyler, M. J., Twidale, C. R., Ling, J. K. & Holmes, J. W. (Eds) "Natural History of the South East", pp. 157-167. (Royal Society of South Australia: Adelaide.)

²Glover, C. J. M. (1966). Rec. S. Aust. Mus. 15 (2), 353-355.

³Glover, C. J. M. (1974). South Aust. Nat. 49 (1), 12-13.

⁴Glover, C. J. M. (1976). *Ibid.* 50(4), 69-72.

⁵Glover, C. J. M. & Branden, K. L. (1978). *Ibid.* 52(4), 55-60.

⁶Glover, C. J. M. & Branden, K. L. (1983). Trans. R. Soc. S. Aust. 107(2), 134-136.

⁷Kailola, P. J. & Jones, G. K. (1981). *Ibid.* 105 (4), 211-212.

⁸Last, P. R., Scott, E. O. G. & Talbot, F. H. (1983). Fishes of Tasmania. (Tasmanian Fisheries Development Authority: Hobart.)

⁹Bass, A. J., D'Aubrey, J. D. & Kistnasamy, N. (1975). Invest. Rept. No. 43, Oceanographic Resch. Inst., South African Assoc. Mar. Biol. Resch.

¹⁰Whitley, G. P. (1968). Aust. Zool. 15(1), 1-102.

¹¹Smith, J. L. B. (1950). The Sea Fishes of Southern Africa. (Central News Agency Ltd: South Africa.)

¹²Munro, I. S. R. (1957). Fisheries Newsl. 16(9), 15-18.

¹³Whitley, G. P. (1962). Marine Fishes of Australia, Volume 1. (Jacaranda Press: Brisbane.)

¹⁴Walters, V. (1960). Copeia, 3: 245-247.

¹⁵Nakamura, I. (1975). NOAA Tech. Rept. NMFS SSRF-675, part 3, 17-27.

¹⁶Fowler, H. W. (1928). Memoirs Bernice P. Bishop Mus., X, i-iii, 1-540, pls. I-XLIX.